

CLAIMS

1. Control for a half-bridge, in particular for operating electric motors, which comprises a first electronic switch, lying between a supply voltage and a phase tap, and a second electronic switch, lying between the phase tap and ground, the control having a control circuit, which controls the two electronic switches of the half-bridge with switching signals, and a processor, which controls the control circuit with at least one signal output, the control circuit controlling both of the electronic switches of the half-bridge by a single signal output of the processor, the control circuit producing only three switching signal pairings for the two electronic switches, that is to say first switch on and second switch off or first switch off and second switch on or first and second switches off, and the control circuit always controlling the switches with only one of the three switching signal pairings.
2. Control according to claim 1, wherein the processor is formed in such a way that at the signal output connected to the control circuit there is either a "high" signal state or a "low" signal state, or a "tristate" signal state, the potential of which can set itself freely.
3. Control according to claim 2, wherein the signal output of the processor connected to the control circuit is either at the feed voltage of the latter or at ground, or allows free potential setting.
4. Control according to claim 1, wherein for defining the only three switching signal pairings, the control circuit comprises a not freely programmable stage.

5. Control according to claim 4, wherein the stage has hard-wired components.
6. Control according to claim 4, wherein the control circuit comprises a not freely programmable stage which establishes fixed associations between the switching signal pairings and the switching states at the signal output.
7. Control according to claim 6, wherein the stage has hard-wired components.
8. Control according to claim 1, wherein the control circuit has two complementary stages which can be controlled by the signal output.
9. Control according to claim 8, wherein the inputs of the complementary stages are connected to the signal output via resistors of equal size.
10. Control according to claim 1, wherein the control circuit has a driver circuit for each of the electronic switches.
11. Control according to claim 1, wherein in the event of the feed voltage at the processor breaking down, the control circuit produces the switching signal pairing in which the first switch is switched off and the second switch is switched on.

12. Control according to claim 1, wherein the control circuit is formed in such a way that, with the "tristate" signal state at the signal output of the processor, it automatically sets a potential that lies between those of the "high" and "low" signal states.
13. Control according to claim 12, wherein the control circuit is formed in such a way that, with the "tristate" signal state at the signal output of the processor, a potential which lies between those of the "high" and "low" signal states automatically sets itself.
14. Control according to claim 10, wherein the driver circuit of the second electronic switch automatically switches the second electronic switch into the freewheeling state if this is required on account of the inductance of the load and the switching off of the first electronic switch.
15. Control device for a load fed via phase taps of at least two half-bridges, each of the half-bridges being controllable with a control of its own, which comprises a first electronic switch, lying between a supply voltage and a phase tap, and a second electronic switch, lying between the phase tap and ground, the control having a control circuit, which controls the two electronic switches of the half-bridge with switching signals, and a processor, which controls the control circuit with at least one signal output, the control circuit controlling both of the electronic switches of the half-bridge by a single signal output of the processor, the control circuit producing only three switching signal pairings for the two electronic switches, that is to say first switch on and second switch off or first switch off and second switch on or first and second switches off, and the control circuit always controlling the switches with only one

of the three switching signal pairings, all the control circuits being respectively controllable by a signal output associated with the latter of a common processor.

16. Control device according to claim 15, wherein the half-bridges are controllable in their power by pulse-width modulation operation of at least one of the electronic switches of the half-bridges respectively to be switched on.
17. Control device according to claim 16, wherein in pulse-width modulation operation, the first electronic switch of one of the half-bridges can be operated in a pulse-width modulated manner and a corresponding second electronic switch of another half-bridge is constantly turned on during the pulse-width modulation operation.